

TG 09680 v08.02

Summary of Changes:

In an effort to bring this Technical Guide up to par with environmentally friendly products and LEED specific features per MasterSpec, we have added or modified the following:

- Section 6.4 Quality Assurance
 - Added installer qualifications
 - Added definition of product option
 - Added indoor Air Quality requirements
 - Added ADA requirements
 - Added recycled materials requirements
- Section 6.6.1 Warranty
 - Added carpet wear features must be met without the use of chair pads
- Section 6.7 Materials
 - Added unit to our physical requirements
 - Added dye mergeability requirements
 - Added list of acceptable manufacturers
- Section 6.8 Construction
 - Reduced Pile and Carpet Face Weight to allow great competition among products that meet physical and performance requirements
- Document font change to more common Arial at 11 point

Carpet TECHNICAL GUIDE

TG 09680

1. COORDINATION ISSUES:

1.1 Testing: Refer to TG 01450 regarding testing for moisture vapor emission and alkalinity.

1.2 Environmental Conditions: Refer to TG03300 regarding concrete slab moisture conditions affecting carpet installation, especially for carpets which act as a moisture barrier.

1.3 Contract Considerations: Carpeting is a long lead item. Allow 6 to 8 weeks for ordering and delivery of materials when scheduling the project.

2. DESIGN ISSUES:

2.1 Carpet System Selection: Confirm requirements with Project Coordinator.

2.1.1 Use Criteria:

2.1.1.1 Texture: Select level loop pile for traffic areas (corridors, lobbies, public areas).

2.1.1.2 Texture: Select cut pile only for non -traffic areas (administration offices, libraries).

- 2.1.1.3 Weave:** Select woven carpet for high-traffic areas and where durability is a requirement.
- 2.1.1.4 Backing:** Select carpet with attached cushion where directed for durability or other special conditions. This is a moisture barrier type carpet.
- 2.1.2 Life Cycle Criteria:**
- 2.1.2.1 Weave:** Select tufted carpet for typical applications.
- 2.1.2.2 Weave:** Select woven carpet for areas where long life is a requirement such as where relocating furnishings is expensive, where installation is difficult or where downtime for future recarpeting cannot be accommodated.
- 2.1.2.3 Weave:** Select woven carpet if reducing waste to landfill over the lifetime of the building is a project goal.
- 2.1.3 Comfort Criteria:**
- 2.1.3.1 Backing:** Select direct glue-down carpet for typical applications.
- 2.1.3.2 Backing:** Select carpeting with separate underlayment only where softness or “plushness” is an absolute necessity. Do not use in areas where wheeled traffic is expected such as in corridors.
- 2.1.3.3 Backing:** Select carpet with attached cushion when directed by Project Coordinator for special applications or where fall safety or reducing foot fatigue is a consideration. This is a moisture barrier type carpet.
- 2.1.4 Moisture Barrier Type Carpet:** Make sure the vapor transmission rate is 3 pounds per 1,000 square feet per 24 hours or less. Ensure concrete floors are tested per the requirements of TG 01450.

3. DRAWING NOTES: (Not Used)

4. STANDARD DRAWINGS: (Not Used)

5. SPECIFICATION NOTES:

5.1 Specification Paragraphs: As of 03/2003, a complete Guide Specification for Sections 09680, 09681, 09682 and 09683 are no longer being maintained by DAGS. Utilize the following specification paragraphs and information as appropriate in the development of the Project Specifications.

6. GUIDE SPECIFICATION:

6.1 Related Sections (Part 1):

6.1.1 Section 01450 Concrete Moisture Vapor Emission and Alkalinity Testing.

6.2 Submittals (Part 1):

6.2.1 Layout Drawings: Submit minimum 1/8 inch scale floor plans showing the carpet layout of all areas. Clearly indicate and accurately locate all wide seams, cross seams, binder edgings and piece markings.

6.3 Testing (Part 1):

6.3.1 Material Testing: After delivery of carpet (and pad) to the jobsite the Contracting Officer may require that the materials be tested by an independent agency to assure compliance. Contractor shall pay for testing.

6.4 Quality Assurance (Part 1):

6.4.1 Installer Qualifications: An experienced installer who can demonstrate compliance with the Floor Covering Installation Board's certification program requirements.

6.4.2 Product Options: Products and manufacturers named in Part 2 establish requirements for the product quality in terms of appearance, construction, and performance. Other manufacturer's products comparable in quality to named products and complying with requirements may be considered.

6.4.3 Indoor Air Quality (IAQ): Comply with the Carpet and Rug Institute's (CRI) test program ASTM D 5116. Include IAC Certification and label for carpet and installation adhesives. Carpet must meet CRI Green Label Plus Certification.

6.4.4 ADA Compliance: Meet ADA requirements for carpets, heights, changes in level and other items.

6.4.5 Recycled Materials: Product must contain 20 percent recycled content in fiber or backing.

6.5 Project Conditions (Part 1):

6.5.1 Environmental Limitations: Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

6.46 Warranty (Part 1):

6.46.1 Special Carpet Warranty: Provide a written warranty, signed by carpet manufacturer agreeing to replace carpet that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, resiliency loss and delamination. Carpet must perform this warranty with the use of chair pads. Warranty shall include failure of the carpet attached backing.

6.46.1.1 Warranty Period: 15 years from Project Acceptance Date.

6.46.2 Special Carpet Cushion Warranty: Provide a written warranty, signed by carpet cushion manufacturer agreeing to replace carpet cushion that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet cushion due to unusual traffic, failure of substrate, vandalism, or abuse. Failure includes, but is not limited to, permanent indentation or compression.

6.46.2.1 Warranty Period: 15 years from Project Acceptance Date.

6.57 Materials (Part 2): Require the following minimum quality levels:

6.57.1 Yarn: Type 6 or 6.6 100% solution dyed nylon or bleach resistant yard dyed.

6.7.2 Mergeability: Carpet that is of the same style/color, but from different dyelots and/or manufacturing dates, may be merged and used interchangeably, both at initial installation and at later selective replacement, to create continuous carpeted surface with no tile appearing out of place.

6.57.23 Weave Type: [Level loop pile] [Textured loop pile] [Cut pile].

6.57.34 Construction

6.57.34.1 Density: 5,200 – 8,600

6.57.34.2 Tufts per square inch (minimum): 40096

6.57.45 Flammability:

6.57.45.1 Carpet: Critical Radiant Flux Classification per ASTM E 648: Not less than 0.22 W/sq. cm.

6.57.45.2 Pad: Pill Test per DOC FF1-70: Passing.

6.57.56 Static Resistance per American Association of Textile Chemists and Colorists: AATCC-134: 3.5 kv or less.

6.7.7 Acceptable Products and Manufacturers:

Collins and Aikman
Lees Commercial Carpets
Shaw Contract
Patchcraft
Mannington
Bigelow
InterfaceFLOR Commercial

6.68 Carpet Construction (Part 2):

6.68.1 Carpet with Separate Underlayment: [Woven] [Tufted].

6.68.1.1 Pile Face Weight: 22 to 2817 ounces per square yard.

6.68.1.2 Pad Weight: Minimum 64 ounce.

6.68.1.3 Tackless Strip: Wood shall be dip treated with oil borne preservative per Section 06311.

6.68.2 Direct glue down carpet: [Woven] [Tufted].

6.68.2.1 Pile Face Weight: ~~22-28~~17 ounces per square yard.

6.68.2.2 Primary Backing: Polypropylene.

6.68.2.3 Secondary Backing: Polyurethane composite bonded.

6.68.3 Carpet with Attached Cushion: Fused tufts.

6.68.3.1 Carpet Face Weight: ~~22 to 28~~17 ounces per square yard.

6.68.3.2 Total Product Weight: 85 to 145 (+ or – 5 percent) ounces per square yard.

6.68.3.3 Primary Backing: Polypropylene or reinforced synthetic.

6.68.3.4 Fusion Coat or Precoat: Sealant vinyl, PVC.

6.68.3.5 Secondary Backing: Closed cell vinyl, urethane, or fiberglass reinforced thermoplastic composite prepared for [direct glue-down][pre-applied adhesive] application.

6.79 Preparation (Part 3):

6.79.1 If test results from Section 01450 indicate the moisture content or alkalinity is not within the flooring manufacturer's requirements do not proceed until condition is corrected.

6.810 Installation (Part 3):

6.810.1 Layout:

6.810.1.1 Comply with carpet manufacturer's written recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under the door in closed position.

6.810.1.2 Lay carpets in adjoining areas in the same direction whenever possible.

6.810.2 Preparing substrates indicated to receive carpet installation: Comply with Carpet and Rug Institute CRI 104-96: Standard for Installation of Commercial Carpet, Section 6.2, "Site Conditions; Floor Preparation," and carpet manufacturer's written installation instructions.

- 6.810.3** Direct-Glue-Down Installation: Comply with CRI 104, Section 8, "Direct Glue-Down Installation."
- 6.810.4** Double-Glue-Down Installation: Comply with CRI 104, Section 9, "Double Glue-Down Installation."
- 6.810.5** Carpet with Attached-Cushion Installation: Comply with CRI 104, Section 10, "Attached Cushion."
- 6.810.6** Carpet with Preapplied Adhesive Installation: Comply with CRI 104, Section 10.4, "Pre-Applied Adhesive Systems (Peel and Stick)."
- 6.810.7** Stretch-in Installation: Comply with CRI 104, Section 11, "Stretch-in Installation."
- 6.810.8** Stair Installation: Comply with CRI 104, Section 12, "Carpet on Stairs."

END OF SECTION ~~09680~~